



STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JOHN ELIAS BALDACCI
GOVERNOR

DAVID P. LITTELL
COMMISSIONER

**Bangor Historic Track, Inc.
Penobscot County
Bangor, Maine
A-1006-71-B-M (SM)**

**Departmental
Findings of Fact and Order
Air Emission License
Amendment #1**

After review of the air emissions license amendment application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

1. Bangor Historic Track, Inc. (BHT) was issued Air Emission License A-1006-71-A-N on May 1, 2009 permitting the operation of emission sources associated with their facility.
2. The equipment addressed in this license is located at 500 Main Street in Bangor, Maine.
3. BHT has requested a minor revision to their license in order to add a portable snow melter to their license.

B. Emission Equipment

The following equipment is addressed in this air emission license:

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>
Snow Melter Engine	0.5	3.9	diesel fuel, 0.05%
Snow Melter Burner	4.5	32.1	diesel fuel, 0.05%

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17 STATE HOUSE STATION
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106 HOGAN ROAD, SUITE 6
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PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
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C. Application Classification

The modification of a minor source is considered a major modification based on whether or not expected emission increases exceed the "Significant Emission Levels" as defined in the Department's regulations. The emission increases are determined by subtracting the current licensed emissions preceding the modification from the maximum future licensed allowed emissions, as follows:

<u>Pollutant</u>	<u>Current License (TPY)</u>	<u>Future License (TPY)</u>	<u>Net Change (TPY)</u>	<u>Sig. Level</u>
PM	1.1	1.6	+0.5	100
PM ₁₀	1.1	1.6	+0.5	100
SO ₂	0.3	0.6	+0.3	100
NO _x	16.2	19.9	+3.7	100
CO	4.8	5.5	+0.7	100
VOC	0.5	0.8	+0.3	50

This amendment will increase emissions by less than 4 ton/year for each single pollutant and less than 8 ton/year for all pollutants combined. Therefore, this modification is determined to be a minor revision and has been processed as such.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in *Definitions Regulation*, 06-096 CMR 100 (last amended December 24, 2005). BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Snow Melter

BHT proposes to operate a portable snow melter which consists of a John Deere model 4024TF270 diesel engine (0.5 MMBtu/hr) and a Trecan Combustion Limited model 4.5-20-OH burner (4.5 MMBtu/hr).

The snow melter engine was ordered after July 11, 2005 and manufactured after April 1, 2006. Therefore, the snow melter engine is subject to New Source Performance Standards 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines*.

This license subjects the snow melter engine to new source review requirements. Therefore, the snow melter engine is exempt from *Emissions from Smaller-Scale Electric Generating Resources*, 06-096 CMR 148 (effective August 9, 2004).

A summary of the BACT analysis for the snow melter engine and burner is the following:

1. The snow melter engine and burner shall fire only diesel fuel with a maximum sulfur content not to exceed 500 ppm.
2. Beginning October 1, 2010, the snow melter engine and burner shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm.
3. The snow melter shall be limited to 2,000 hr/yr of total operation based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all operating hours.
4. The snow melter shall be equipped with a non-resettable hour meter.
5. *Low Sulfur Fuel*, 06-096 CMR 106 (last amended June 9, 1999) regulates fuel sulfur content for the snow melter burner. However, the BACT analysis determined a more stringent limit was appropriate.
6. *Fuel Burning Equipment Particulate Emission Standard*, 06-096 CMR 103 (last amended November 3, 1990) regulates PM emission limits for the snow melter burner. However, the BACT analysis determined that a more stringent limit of 0.08 lb/MMBtu was appropriate.
7. The PM limits for the snow melter engine were derived from 06-096 CMR 103. The PM₁₀ limits are derived from the PM limits.
8. NO_x emission limits for the snow melter burner are based on data from similar #2 oil fired boilers of this size and age.
9. CO and VOC emission limits for the snow melter burner are based upon AP-42 data dated 9/98.
10. NO_x, CO, and VOC emission limits for the snow melter engine are based upon AP-42 data dated 10/96
11. Visible emissions from the snow melter shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block average in a continuous 3-hour period.

C. Annual Emissions

BHT shall be restricted to the following annual emissions, based on a 12 month rolling total:

Total Licensed Annual Emissions for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Generator #1	0.6	0.6	0.2	15.2	4.0	0.4
Natural Gas Firing	0.5	0.5	0.1	1.0	0.8	0.1
Snow Melter Engine	0.1	0.1	0.1	2.3	0.5	0.2
Snow Melter Burner	0.4	0.4	0.2	1.4	0.2	0.1
Total TPY	1.6	1.6	0.6	19.9	5.5	0.8

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-1006-71-B-M subject to the conditions found in Air Emission License A-1006-71-A-N and in the following conditions.

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

The following are New Conditions:

(19) Snow Melter

- A. The snow melter engine and burner shall fire only diesel fuel with a maximum sulfur content not to exceed 500 ppm.
[40 CFR 60.4207(a) and 06-096 CMR 115, BACT]

- B. Beginning October 1, 2010, the snow melter engine and burner shall fire only diesel fuel with a maximum sulfur content not to exceed 15 ppm. [40 CFR 60.4207(b) and 06-096 CMR 115, BACT]
- C. Compliance with the sulfur content limits shall be based on fuel records from the supplier showing the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BACT]
- D. The snow melter shall be limited to 2,000 hr/yr of total operation based on a 12 month rolling total. Compliance shall be demonstrated by a written log of all operating hours. [40 CFR 60.4211(E) and 06-096 CMR 115, BACT]
- E. The snow melter engine shall be equipped with a non-resettable hour meter. [40 CFR 60.4209(a)]
- F. Emissions shall not exceed the following:

Emission Unit	Pollutant	lb/MMBtu	Origin and Authority
Snow Melter Burner	PM	0.08	06-096 CMR 115, BACT

- G. Emissions shall not exceed the following [06-096 CMR 115, BACT]:

Emission Unit	PM (lb/hr)	PM ₁₀ (lb/hr)	SO ₂ (lb/hr)	NO _x (lb/hr)	CO (lb/hr)	VOC (lb/hr)
Snow Melter Engine	0.06	0.06	0.03	2.34	0.50	0.19
Snow Melter Burner	0.36	0.36	0.23	1.35	0.16	0.01

- H. The snow melter engine is subject to PM, CO, and NO_x + VOC emission requirements set forth in 40 CFR 60, Subpart IIII. Compliance with these emission requirements shall be demonstrated by certification from the manufacturer that this engine class meets the appropriate Tier standards. [40 CFR 60, Subpart IIII]
- I. BHT shall operate and maintain the snow melter engine in accordance with the manufacturer's written instructions. BHT shall not change settings that are not approved in writing by the manufacturer. [40 CFR 60.4211(a)]

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- J. Visible emissions from the snow melter shall not exceed 20% opacity on a six (6) minute block average, except for no more than one (1) six (6) minute block averages in a continuous 3-hour period. [06-096 CMR 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS 27th DAY OF January, 2010.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: James P. Little
DAVID P. LITTELL, COMMISSIONER

The term of this amendment shall be concurrent with the term of Air Emission License A-1006-71-A-N.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 1/11/10
Date of application acceptance: 1/11/10

Date filed with the Board of Environmental Protection:

This Order prepared by Lynn Ross, Bureau of Air Quality.

